



Deep Impact's Comet on a Stick! Educator Page



Created for the Deep Impact Mission, A NASA Discovery Mission
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The "Comet on a Stick" activity can be used with a wide age range. All students will see that modeling is continuous on a NASA mission as is evaluation of those models. Younger students will learn the basic characteristics of a comet. Older students will practice evaluation and improvement of the comet model shown. The importance of this activity is not the initial model or its exercise, but the fact that it will put students in the position of emulating a process scientists and engineers follow on all missions.

The activity:

"Comet on a Stick" - The activity

"The Deep Impact Paper Comet" - A less expensive version of the "Comet on a Stick for wider use"

Supplies are shown on each activity. Gather household and art supplies so that students can improve or build new models.

Background materials for this activity:

Consider This - This page shows the history of perceptions about comets.

A Comet's Place in the Solar System - A little history about where comets came from

Ten Important Comet Facts - A quick review of comet facts

C-O-M-E-T-S - A comet acrostic. Good for younger students or comet quick fact reference

Deep Impact - Interesting Mission Facts - Some fun facts about the Deep Impact mission

Small Bodies Missions - Learn more about Deep Impact and about other missions to comets and asteroids.

National Science Education Standards related to this activity:

Science as Inquiry:

- ☐ - Identify questions that can be answered through scientific investigations
- ☐ - Think critically and logically to make the relationships between evidence explanations
- ☐ - Develop descriptions, explanations, predictions and models using evidence
- ☐ - Recognize and analyze alternative explanations and predictions

Tips for materials to improve or build comet models:

- ☐ - Find fruits and vegetables that might look like a comet nucleus.
- ☐ - Get different "surface" coverings like chocolate cake mix or icing, chocolate shell (you'll need to freeze the object you cover)
- ☐ - Paper or streamer of different kinds
- ☐ - Paints or other coloring solutions
- ☐ - Any kind of textured covering that you think would be useful
- ☐ - Netting or other sheer fabrics
- ☐ - Bulk cushion stuffing fiber or cotton balls
- ☐ - Tin foil
- ☐ - See what else you can come up with

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